

PRODUCT BRIEF NVMe SSD



Product Highlights

- Keep your imagination flowing as you create faster while maintaining low power consumption. With read speeds up to 3500MB/s¹ (500GB 2TB² models), your system can run up to 5X faster than our best SATA SSDs so you can stay in your creative moment.
- Remarkable reliability features to help protect your content so you can stress less about losing your brilliant work.
- Work with extra confidence and peace of mind as the downloadable Western Digital® SSD Dashboard³ helps you monitor your drive's health, available space, temperature and more.
- Build your ideal creation engine. Upgrade your system or optimize your next custom build with the slim M.2 2280 form factor. All you need is a PCIe® Gen3 x4 NVMeTM slot⁴.
- Save on space as you pack a lot of performance into your small-form factor PC with a singlesided M.2 2280 PCIe® Gen3 x4 NVMe™ SSD⁴.
- As an industry-leading flash drive manufacturer and OEM drive manufacturer, Western Digital stands behind WD Blue™ SN570 NVMe™ SSD with a 5-year limited warranty⁵.
- Acronis® True Image™ for Western Digital software backs up everything from operating systems and applications to settings and project files with support for PCs⁶.

WD Blue™ SN570 NVMe™ SSD



Stay in the moment and create beyond your expectations with the WD BlueTM SN570 NVMeTM SSD. This powerful internal drive delivers up to 5X the speed of our best SATA SSDs so you can let your imagination flow and worry less about PC lag or load times. Purpose-built for endurance, the WD Blue SN570 SSD delivers reliable data protection while keeping your storage health in check with the downloadable Western Digital® SSD Dashboard³. Whether you're working on your next passion project or crunching large amounts of data, take advantage of the high performance and capacities up to 2TB² in an affordable M.2 2280 form factor to do more, faster.

Spark Imagination

Inspire creativity with a one-month membership* to Adobe® Creative Cloud® offering access to some of the world's best creative apps and services such as Adobe Photoshop®, Illustrator®, Lightroom®, Premiere Pro® and InDesign®. For details go to: www.wd.com/adobe.

Tune Up Your Performance

Build your ideal creation engine. Upgrade your system or optimize your next custom build with the slim M.2 2280 form factor. All you need is an NVMeTM slot.

Stay in the Moment

Keep your imagination flowing as you create faster while maintaining low power consumption. With read speeds up to 3500MB/s¹ (500GB – 2TB² models), your system can run up to 5X faster than our best SATA SSDs so you can stay in your creative moment.

A Standard for Reliability

We value your content. That's why the WD Blue™ reliability features help protect your content so you can stress less about losing your brilliant work.

Get Extra Peace of Mind

Work with extra confidence and keep your projects on point as the downloadable Western Digital® SSD Dashboard³ helps you monitor your drive's health, available space, temperature and more.

Save on Space

Pack a lot of performance into your small-form factor PC with a single-sided M.2 2280 PCIe® Gen3 x4 NVMeTM SSD⁴.

Stay Organized

Back up your photos, videos, and other personal files with included Acronis® True Image™ for Western Digital® software⁶.

^{*} Individual subscription. Internet connection and Adobe ID required. Available in countries where Adobe Creative Cloud Individual Subscription is available. Offer limited to 1 per WD Blue SN570 NVMe SSD purchase; up to 5 per Adobe user account, subject to acceptance of applicable Terms of Use. Offer must be redeemed by October 31, 2023, while activation code supplies last. Western Digital reserves the right to change or discontinue this offer at any time without notice. See www.adobe.com/leagl/terms.html for applicable terms and Privacy Policy.

Specifications

Interface M.2 2280 ³ NAND Type	PCle® Gen3 8 Gb/s, up to 4 Lanes TLC	PCIe Gen3 8 Gb/s, up to 4 Lanes TLC
**	TLC	TLC
Performance ¹		
Sequential Read (MB/s) up to (Queues = 32, Threads = 1)	3,300	3,500
Sequential Write (MB/s) up to (Queues = 32, Threads = 1)	1,200	2,300
Random Read 4KB IOPS up to (Queues=32, Threads=16)	190K	360K
Random Write 4KB IOPS up to (Queues=32, Threads=16)	210K	390K
Endurance (TBW) ⁶	150	300
Power		
Average Active Power ⁷	90mW	90mW
Low Power (PS3)	30mW	30mW
Sleep (PS4) (low power)	5mW	5mW
Maximum Operating Power ⁸	3.5W	4.0W
Reliability		
MTTF (hours) ⁹	1.5M	1.5M
Environmental		
Operating Temperatures ¹⁰	32°F to 158°F (0°C to 70°C)	32°F to 158°F (0°C to 70°C)
Non-operating Temperatures ¹¹	-40°F to 185°F (-40°C to 85°C)	-40°F to 185°F (-40°C to 85°C)
Operating Vibration	5.0 gRMS, 10-2000 Hz, 3 axes	5.0 gRMS, 10–2000 Hz, 3 axes
Non-Operating Vibration	4.9 gRMS, 7-800 Hz, 3 axes	4.9 gRMS, 7-800 Hz, 3 axes
Shock	1,500 G @ 0.5 msec half sine	1,500 G @ 0.5 msec half sine
Certifications	BSMI, CAN ICES-3(B)/NMB-3(B), CE, FCC, KCC, Morocco, RCM, TUV, UL, VCCI	BSMI, CAN ICES-3(B)/NMB-3(B), CE, FCC, KCC, Morocco, RCM, TUV, UL, VCCI
Limited Warranty ⁵	5 years	5 years
Physical Dimensions		
Form Factor	M.2 2280	M.2 2280
_ength	80 ± 0.15mm	80 ± 0.15mm
Width	22 ± 0.15mm	22 ± 0.15mm
Height	2.38mm	2.38mm
Weight	6.5g ± 1g	6.5g ± 1g
Ordering Information		
Model Number	WDS250G3B0C	WDS500G3B0C

¹ Test Conditions: Performance is based on the CrystalDiskMark™ 8.0.1 benchmark, 1000MB LBA range, on an Asus™ ROG Crosshair VIII Hero X570 desktop with AMD® Ryzen 9 3950X 16-Core, 32GB 3200MHz DDR4, Windows® 10 Pro 64-bit 20H1 using Microsoft® StorNVMe™ driver, secondary drive. 1 MB/s = 1 million bytes per second. IOPS = input/output operations per second. Based on internal testing; performance may vary depending upon host device, usage conditions, drive capacity, and other factors.

- ² 1GB = 1 billion bytes and 1TB = 1 trillion bytes. Actual user capacity may be less depending on operating environment.
- ³ Available for download at www.westerndigital.com.
- ⁴ Backwards compatible with PCIe Gen3 x1, PCIe Gen2 x4, PCIe Gen2 x2, and PCIe Gen2 x1.
- ⁵ S years or Max Endurance (TBW) limit, whichever occurs first. See support.wdc.com/warranty for regional specific warranty details.
- Download and installation required. Includes 5-year license for your compatible drive. Redeem within 90-days of purchase. May not be combined with other offers. Limited time offer, see wd.com/backup for more details. Offer subject
- 7 TBW (terabytes written) values calculated using JEDEC client workload (JESD219) and vary by product capacity.
- 8 Measured using MobileMark™ 2018 on Dell® Precision 7730 intel® Core™ i5-8300 CPU @ 2.30GHZ 8GB Windows 10 RS5 (1809) Bios 1.13.1.
- ⁹ Measured during continuous sequential read or write activity and indicates the average over 1 second intervals.

 10 MTTF = Mean Time To Failure based on internal testing using Telcordia™ stress part testing (Telcordia SR-332, GB, 25°C). MTTF is based on a sample population and is estimated by statistical measurements and acceleration algorithms. MTTF does not predict an individual drive's reliability and does not constitute a warranty.
- 11 Operational temperature is measured by thermal sensors in NAND package. The SSD box package is rated up to 60 $^{\circ}$ C.
- ¹² Non-operational storage temperature does not guarantee data retention.

Specifications

Interface M.2 2280³	
Sequential Read (MB/s) up to (Queues=32, Threads=1)	Lanes
Sequential Read (MB/s) up to (Queues=32, Threads=1) 3,500 3,500 Sequential Write (MB/s) up to (Queues=32, Threads=1) 3,000 3,500 Random Read 4(KB IOPS up to (Queues=32, Threads=16) 460K 600K Random Write 4(KB IOPS up to (Queues=32, Threads=16) 450K 600K Endurance (TBW)* 600 900 Power 800 900 Vower 90mW 90mW Low Power (PS3) 30mW 30mW Sleep (PS4) (low power) 5mW 5mW Maximum Operating Power* 4,5W 4,5W Reliability 1,5M 1,5M Invironmental 32°F to 158°F (0°C to 70°C) 32°F to 158°F (0°C to 70°C) 32°F to 158°F (0°C to 70°C) Operating Temperatures* 32°F to 158°F (40°C to 85°C) 40°F to 185°F (40°C to 85°C) 40°F to 185°F (40°C to 85°C) Operating Vibration 5,0 gMM, 10-2000 Hz, 3 axes 5,0 gMM, 10-2000 Hz, 3 axes 5,0 gMM, 10-2000 Hz, 3 axes Shock 1,500 G@ 0.5 msec half sine 1,500 G@ 0.5 msec half sine 1,500 G@ 0.5 msec half sine Certifications BSM, CAN ICES-3(B)/NMB-3(B), CE, FCC, KCC, Mor	
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Average Active Power? 90mW 90mW Low Power (PS3) 30mW 30mW Sleep (PS4) (low power) 5mW 5mW Maximum Operating Power® 4.5W 4.5W **Reliability** MTTF (hours)® 1.5M 1.5M **Invironmental** Operating Temperatures® 32°F to 158°F (0°C to 70°C) 32°F to 158°F (0°C to 70°C) 70°C to	
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Physical Dimensions Form Factor M.2 2280 M.2 2280	C, KCC, Morocco,
Form Factor M.2 2280 M.2 2280	
Length 80 ± 0.15mm 80 ± 0.15mm 80 ± 0.15mm	
Width 22 ± 0.15mm 22 ± 0.15mm	
Height 2.38mm 2.38mm	
Weight $6.5g \pm 1g$ $6.5g \pm 1g$	
Ordering Information	
Model Number WDS100T3B0C WDS200T3B0C	

Footnotes:

Specifications subject to change without notice.

Test Conditions: Performance is based on the CrystalDiskMark™ 8.0.1 benchmark, 1000MB LBA range, on an Asus™ ROG Crosshair VIII Hero X570 desktop with AMD® Ryzen 9 3950X 16-Core, 32GB 3200MHz DDR4, Windows® 10 Pro 64-bit 20H1 using Microsoft® StorNVMe™ driver, secondary drive. 1 MB/s = 1 million bytes per second. IOPS = input/output operations per second. Based on internal testing; performance may vary depending upon host device, usage conditions, drive capacity, and other factors.

- ² 1GB = 1 billion bytes and 1TB = 1 trillion bytes. Actual user capacity may be less depending on operating environm
- 3 Available for download at www.westerndigital.com
- 4 Backwards compatible with PCIe Gen3 x1, PCIe Gen2 x4, PCIe Gen2 x2, and PCIe Gen2 x1,
- ⁵ 5 years or Max Endurance (TBW) limit, whichever occurs first. See support.wdc.com/warranty for regional specific warranty details.
- Download and installation required. Includes 5-year license for your compatible drive. Redeem within 90-days of purchase. May not be combined with other offers. Limited time offer, see wd.com/backup for more details. Offer subject
- TBW (terabytes written) values calculated using JEDEC client workload (JESD219) and vary by product capacity.
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- 11 Operational temperature is measured by thermal sensors in NAND package. The SSD box package is rated up to 60 $^{\circ}$ C.
- 12 Non-operational storage temperature does not guarantee data retention

Western Digital.

5601 Great Oaks Parkway San Jose, CA 95119, USA

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